

PCB CNC Drilling Machine Datasheet

D1X D2X D3X and D4X drilling series. Structure drive table size spindle speed tool capacity and the full published specification for each model.



Model Overview

Series	Structure and Drive	Table Size	Spindle Speed	Tool Capacity
D1X	One Z axis with one or multiple spindles	500mmx680mm	160-200krpm maximum 4 spindles XYZ ball screw drive	66pcs
D2X	Independent Z axis XYZ ball screw drive	660mmx680mm	160-200krpm	220pcs
D3X	Independent Z axis XYZ linear motor	660mmx680mm	160-200krpm	220pcs
D4X	Independent Z axis XY linear motor Z ball screw drive	660mmx680mm	160-200krpm	220pcs

D1X PCB Drilling Machine

Model D12 / D14 / D16



One Z axis carrying one or multiple spindles with a maximum of four spindles on XYZ ball screw drive. The entry point into the DLCNC drilling range.

Configuration

- XYZ axis imported AC servo drive system
- Imported high precision ball screw and linear guides
- Air bearing spindles
- Granite marble base frame

Features

- Smart gripper design picks and loads efficiently and precisely
- 66pcs tooling capacity for the spindle to handle
- Automatic tooling length check
- Contacted tooling broken detection greatly reduces reaction time
- Water cooling system with real time monitoring on cooling temperature and water flow to protect the spindles

Specifications

Item	Parameters
Processing Area of Each Axis	580mm×680mm
Spindle Speed	160krpm
Drilling Diameter	0.3- 6.35mm
XY axis max movement speed	28-35m/min
Positioning Accuracy	±0.01mm
Repeatability Accuracy	±0.005mm
Power Supply Requirement	3PH-AC380V+PE 50/60Hz
Compressed Air Requirement	35L/min per axis air pressure 2Kg/cm
Cooling Water Temperature	18 -25
Working Condition Temperature	20 -25
Humidity	50%-75%

D2X PCB Drilling Machine

Model D2X series including D22



Independent Z axis structure on XYZ ball screw drive. The independent Z axis holds the vertical accuracy of the machine and improves the drilling speed.

Configuration

- XYZ axis imported AC servo drive system
- Imported high precision ball screw and linear guides
- Air bearing spindles
- Granite marble base frame

Features

- XYZ independent structure
- Independent Z axis holds the vertical accuracy of the machine and improves the drilling speed
- Quick drill function reduces the waiting time
- QIC function improves the drilling accuracy and speed
- Smart gripper design picks and loads efficiently and precisely
- 220pcs tooling capacity for the spindle to handle
- Automatic tooling length and diameter check
- Contacted tooling broken detection greatly reduces reaction time
- Water cooling system with real time monitoring on cooling temperature and water flow to protect the spindles

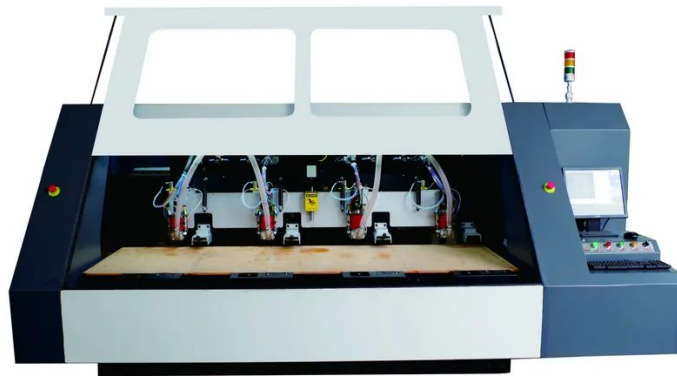
Specifications

Item	Parameters
Processing Area of Each Axis	680mm×680mm
Spindle Speed	160-200krpm
Drilling Diameter	0.15- 6.35mm
XY axis max movement speed	50/min
Z axis max movement speed	30/min
Positioning Accuracy	±0.01mm
Repeatability Accuracy	±0.005mm
Drilling Accuracy	±1mil

Power Supply Requirement	3PH-AC380V+PE 50/60Hz 4KVA
Compressed Air Requirement	35L/min per axis air pressure 2Kg/cm
Cooling Water Temperature	18 -25
Working Condition Temperature	20 -25
Humidity	50%-75%

D3X PCB Drilling Machine

Model D3X series



XYZ axis linear motor drive with high precision linear scale and guide. The fastest configuration in the DLCNC drilling range.

Configuration

- XYZ axis linear motor
- High precision linear scale and guide
- Granite marble base frame

Features

- XYZ independent structure with linear motor to improve the drilling speed
- Quick drill function reduces the waiting time
- QIC function improves the drilling accuracy and speed
- Smart gripper design picks and loads efficiently and precisely
- 220pcs tooling capacity for the spindle to handle
- Automatic tooling length and diameter check
- Contacted tooling broken detection greatly reduces reaction time
- Water cooling system with real time monitoring on cooling temperature and water flow to protect the spindles

Specifications

Item	Parameters
Processing Area of Each Axis	680mm×680mm
Spindle Speed	160-200krpm
Drilling Diameter	0.15- 6.35mm

XY axis max movement speed	80/min
Z axis max movement speed	50/min
Positioning Accuracy	±0.01mm
Repeatability Accuracy	±0.005mm
Drilling Accuracy	±1mil
Power Supply Requirement	3PH-AC380V+PE 50/60Hz 4KVA
Compressed Air Requirement	35L/min per axis air pressure 2Kg/cm
Cooling Water Temperature	18 -25
Working Condition Temperature	20 -25
Humidity	50%-75%

D4X PCB Drilling Machine

Model D42 / D44 / D46



Linear motor drive with high precision linear scale and guide on a granite marble base frame. The D4X is the volume drilling configuration in the DLCNC range.

Configuration

- XYZ axis linear motor
- High precision linear scale and guide
- Granite marble base frame

Features

- XYZ independent structure with linear motor to improve the drilling speed
- Quick drill function reduces the waiting time
- QIC function improves the drilling accuracy and speed
- Smart gripper design picks and loads efficiently and precisely
- 220pcs tooling capacity for the spindle to handle
- Automatic tooling length and diameter check
- Contacted tooling broken detection greatly reduces reaction time
- Water cooling system with real time monitoring on cooling temperature and water flow to protect the spindles

Specifications

Item	Parameters
Processing Area of Each Axis	680mm×680mm
Spindle Speed	160-200krpm
Drilling Diameter	0.15- 6.35mm
XY axis max movement speed	80/min
Z axis max movement speed	30/min
Positioning Accuracy	±0.01mm
Repeatability Accuracy	±0.005mm
Drilling Accuracy	±1mil
Power Supply Requirement	3PH-AC380V+PE 50/60Hz 4KVA
Compressed Air Requirement	35L/min per axis air pressure 2Kg/cm
Cooling Water Temperature	18 -25
Working Condition Temperature	20 -25
Humidity	50%-75%

Utilities and Environment

Power supply cooling water compressed air room temperature and humidity requirements are listed in each specification table. Confirm them against the installation site before shipment.